

# Retired Northmont teacher's harness invention saves lives

Steve Heinrichs, 52, will run his family's business

By Marvin Hapgood  
For the Dayton Daily News

**CLAYTON** — May 28 was a milestone day in the life of Steve Heinrichs.

On that day, the Clayton resident celebrated his 52nd birthday and retired from a 30-year teaching career at Northmont High School in the physical education department.

Retirement will give Heinrichs time for his family business, MASS Inc., which stands for movement and sports specialties. He will run the business with his wife, Karen.

Heinrichs branched and developed two types of harnesses — one used in physical rehabilitation and training, and the other a multidirectional tool that is used in confined space extractions.

He has come far from his days at Greenville High School, where he was a basketball player and the manager of the basketball team.

"I was this frail little guy," he said.

He didn't reach his full height of a shade less than 5 feet until adulthood. His other interest was diving, and he looked into joining the diving team in college at Ohio State University, but he was told that his skills weren't sufficient for collegiate competition.

However, diving coach Ron O'Brien steered him in a different direction. He suggested that Heinrichs check out the men's gymnastics team. It was a farfetched suggestion, as Heinrichs took to gymnastics and especially vaulting like a duck to water.

A teammate who was also on



STEVE HEINRICHS (left) and Anthony Terrace (right) pull a cadet Roy Call from a stairwell to be lifted to safety in a simulated rescue also by the Englewood Fire Department's Training Center using the MASS strap designed by Steve Heinrichs, a retired Northmont teacher.

the Ohio State cheerleading squad encouraged him to try out, and Heinrichs cheered until his graduation in 1974. He also participated in lacrosse.

When it came time to look for a job, Heinrichs was actually scouted by Northmont assistant principal Anthony Terrace.

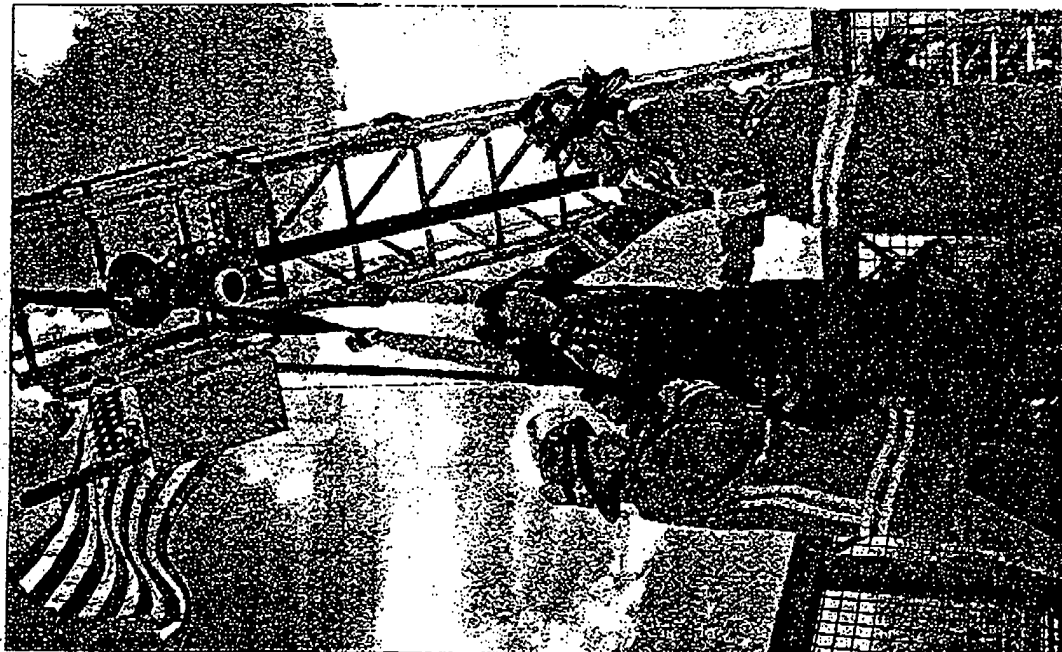
DiBiase had been Heinrichs' high school physical education teacher at Greenville, and Northmont was looking for an instructor in movement and gymnastics to round out its own physical education department.

Sally Murphy, who was the department chair until her retirement in 1997, had a hand in the hire.

"Steve had skills that belated the program, and he was such a breath of fresh air, upbeat, with a positive outlook," she said. "I don't think that Nor or I can't be done" related in his recollections.

Murphy said a "gymnastics

## A STRAP FOR SAFETY



ENGLEWOOD FIREFIGHTERS Robert Hinder (left) and Anthony Terrace (right) pull cadet Roy Call from a stairwell to be lifted to safety in a simulated rescue also by the Englewood Fire Department's Training Center using the MASS strap designed by Steve Heinrichs, a retired Northmont teacher.

## HARNES

Clayton man creates lifesaving device

Continued from Page 1

After two years at Northmont, he took a sabbatical and returned to OSU for his master's degree, and during his time there he worked as a teaching assistant and a women's gymnastics coach.

Heinrichs never took to anything lightly. Upon his return to Northmont, he had a successful run as a gymnastics coach along with teaching, but took a break in 1988 because of the birth of his son, Jake, who will be a sophomore at Northmont this fall.

"I had to learn to be a father," he said.

It was a whole new area for him to explore, and he was fascinated with Jake's development and then with that of Kate, who will be in the eighth grade at Northmont Middle School this fall.

"I was used to 14- to 18-year-olds, so I was amazed with what the kids with little bodies could do if you gave them a task," he said. When Jake was 3, Heinrichs used a sewing machine to whip up the prototype for his balance harness. He made the harness to teach the child to ride a bicycle at that early age.

Heinrichs realized that the harness had multiple applications. In addition to helping a child ride a bike, rollerblade or attempt a gymnastics move, it could be used in physical therapy for people re-learning to walk.

Heinrichs has received two

patents on the harness, which is distributed by Southgate Occupational Therapy. The harnesses also are used by sports medicine, amputees and patients with other mobility issues.

"The biggest thing it does is take away the fear of falling," he said. "It allows you to step out of the zone of fear and into the zone of play."

He has also developed a second type of harness that is used for confined space extractions. It is tested at 11,000 pounds and can be used to extract bodies from small areas — even dead bodies of people who are critically injured.

There is a lot of military potential, too, Heinrichs said. "We have used it to pull a Hummer out of a ditch."

The harness was used following the World Trade Center disaster in 2001 as an anchor strap for workers to rappel into confined areas to look for survivors.

It is being used by many fire departments, including Englewood, Union, Huber Heights, Vandalia, Pleasant Hill and Dayton.

As much as Heinrichs is looking to the future, he admitted that he will miss kids and colleagues stepping in at Northmont.

He will continue to coach the girls' gymnastics team, which was disbanded three years ago. Since then, a girl went to state competition in 2002, two in 2003 and four this past year.

"Hopefully, next year we'll go as a team," he said.



BEST AVAILABLE COPY

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☐ **BLACK BORDERS**

☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**

☐ **FADED TEXT OR DRAWING**

☒ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**

☐ **SKEWED/SLANTED IMAGES**

☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**

☐ **GRAY SCALE DOCUMENTS**

☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**

☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**

☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**